

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A semiconductor device comprising: a semiconductor substrate;
a first circuit formed on the semiconductor substrate, the first circuit including first and second field-effect transistors,
the first field-effect transistor comprising: a first source region and a first drain region formed apart from each other on a surface of the semiconductor substrate;
a first gate insulation film formed between the first source region and the first drain region; and a first gate electrode formed on the first gate insulation film,
the second field-effect transistor comprising: a second source region and a second drain region formed apart from each other and apart from the first field-effect transistor on the surface of the semiconductor substrate;
a second gate insulation film formed between the second source region and the second drain region; and
a second gate electrode formed on the second gate insulation film,
the first drain region of the first field-effect transistor accompanying a first load capacitance, the second drain region of the second field-effect transistor accompanying a second load capacitance which is smaller than the first load capacitance, and the first gate insulation film of the first field-effect transistor having an average relative dielectric constant higher than that of the second gate insulation film of the second field-effect transistor, and
a second circuit coupled to the first circuit as an input/output portion of the first circuit and powered by a voltage higher than that for the first circuit.

2. (Original) The semiconductor device according to claim 1, wherein the first field-effect transistor of the first circuit drives the second circuit.

3. (Original) The semiconductor device according to claim 1, wherein the first gate insulation film of the first field-effect transistor is formed of a mixture of amorphous material and crystalline material, and the second gate insulation film of the second field-effect transistor is substantially formed of the amorphous material.

4. (Original) The semiconductor device according to claim 3, wherein the crystalline material is a metal oxide.

5. (Original) The semiconductor device according to claim 1, wherein the first gate insulation film and the second gate insulation film are formed of a mixture of amorphous material and crystalline material, and an amount of the crystalline material in the first gate insulation film is larger than that of the crystalline material in the second gate insulation film.

6. (Original) The semiconductor device according to claim 5, wherein the crystalline material is a metal oxide.

7. (Original) The semiconductor device according to claim 1, wherein the first gate insulation film and the second gate insulation film include silicon, oxygen, and a metal element.

8. (Original) The semiconductor device according to claim 7, wherein a ratio of the number of atoms of the metal element included in the first gate insulation film to a sum of the numbers of atoms of the metal element and the silicon is 0.3 or more.

9. (Original) The semiconductor device according to claim 7, wherein a ratio of the number of atoms of the metal element included in the second gate insulation film to a sum of the numbers of atoms of the metal element and the silicon is 0.1 or less.

10. (Original) The semiconductor device according to claim 7, wherein a ratio of the number of atoms of the metal element included in the second gate insulation film to a sum of the numbers of atoms of the metal and the silicon is 0.3 or more, and a ratio of an average radius of an oxide of the metal to a thickness of the second gate insulation film is 0.1 or less.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)